UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,012	08/31/2001	Sachin G. Deshpande	SLA 1059	9339

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EXAMINER
PWU, JEFFREY C

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		09/944,012	DESHPANDE, SACHIN G.
		Examiner	Art Unit
		Jeffrey Pwu	2143

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-38_ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-38_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. _____.
    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _8/31/2001_.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

DETAILED ACTION

Title

1.   The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1-38 are rejected under 35 U.S.C. 102(e) as being unpatentable over Yano et al.

(U.S. 6,701,372).

Yano et al. disclose claims :

1. In a network including a server and a plurality of clients, a system and method for achieving

simultaneous media playout, the method comprising: from a server, supplying a media stream to

clients at a first bitrate (Rcur); determining the network delivery requirement; and, in response to

the network delivery requirements, modifying the supply of the media stream (abstract, fig.1,

col.3, line 14-col.4, line 64).

2. The method of claim 1 wherein determining the network delivery requirements includes

determining the buffering capacities of the clients, and determining media streaming disruptions

(abstact).

3. The method of claim 2 wherein determining the buffering capacities of the clients includes

determining the first minimum client buffering capacity (col.3, line 14-col.4, line 64).

4. The method of claim 3 wherein determining the first minimum client buffering capacity includes: polling the clients for their respective buffering capacities; determining which client has the smallest buffering capacity; and, selecting the first minimum buffering capacity to be equal to the client with the smallest buffering capacity (col.1, line 48-col.2, line 10).

5. The method of claim 4 further comprising: at each client, scheduling the playout to be at a time equal to a first time interval plus the minimum buffering capacity divided by the first bitrate (col.4, line 25-col.5, line 59).

6. The method of claim 5 further comprising: prior to supplying a media stream at the first bitrate, communicating the first minimum buffering capacity to the clients (col.3, line 14-col.4, line 64).

7. The method of claim 6 further comprising: following the supplying of media stream at a first bitrate , changing clients in the network; determining the new minimum client buffering capacity; and, wherein modifying the supply of the media stream includes modifying the supply of the media stream in response to the new minimum buffering capacity (col.4, line 25-col.5, line 59).

8. The method of claim 7 wherein modifying the supply of the media stream includes temporarily pausing the supply of the media stream at the first bitrate, and temporarily increasing the media stream bitrate (col.4, line 25-col.5, line 59).

9. The method of claim 8 further comprising:
prior to modifying the supply of the media stream, communicating the new minimum buffering capacity to the clients (col.4, line 25-col.5, line 59).

10. The method of claim 9 wherein temporarily pausing the supply of the media stream at the first bitrate includes temporarily pausing the supply of the media stream if the new minimum buffering capacity is less than the first minimum buffering capacity (col.4, line 25-col.5, line 59).

11. The method of claim 10 wherein temporarily pausing the supply of the media stream, if the new minimum buffering capacity is less than the first minimum buffering capacity, includes pausing for a time equal to the first minimum buffering capacity minus the new minimum buffering capacity, divided by the first bitrate (col.4, line 25-col.5, line 59).

12. The method of claim 8 wherein determining the new minimum buffering capacity includes: determining if the new minimum buffering capacity is greater than the first minimum buffering

capacity; determining if the supply of the media stream has been disrupted; and, wherein

modifying the supply of the media stream includes temporarily increasing the media stream

bitrate (col.7, line 5-col.19, line 19).

13. The method of claim 12 further comprising:

polling the clients and the server to determine the minimum bitrate; and, wherein modifying the

supply of the media stream includes supplying the media stream at the minimum bitrate for a

time equal to the new minimum buffering capacity minus the first minimum buffering capacity,

divided by the minimum bitrate minus the first bitrate (col.11, line 51-col.14, line 62).

14. The method of claim 8 wherein supplying a media stream from a server to clients at a first

bitrate includes supplying data as media packets; wherein determining the new minimum

buffering capacity includes: determining the current-buffer-level, which is the number of media

packets buffered at each client; determining if the new minimum buffering capacity is less than

the current buffer level; and, wherein modifying the supply of the media stream includes

temporarily pausing the supply of media stream for a time equal to the current-buffer-level minus

the new minimum buffering capacity, divided by the first bitrate (col.11, line 51-col.14, line 62).

15. The method of claim 14 further comprising: polling the clients and the server to determine

the minimum bitrate; and, wherein modifying the supply of the media stream includes supplying

the media stream at the minimum bitrate for a time equal to the new minimum buffering

capacity minus the current-buffer-level, divided by the minimum bitrate minus the first bitrate

(col.11, line 51-col.14, line 62).

16. The method of claim 15 wherein determining the current-buffer-level includes determining if

the media stream has been disrupted; and, wherein modifying the supply of the media stream

includes supplying the media stream at the minimum bitrate (Rmin) for a time equal to new

minimum buffering capacity minus the current-buffer-level, divided by the minimum bitrate

minus the first bitrate (col.4, line 25-col.5, line 59).

17. The method of claim 16 further comprising: at the server, maintaining a current-buffer-level

measurement to track the number of media packets supplied by the server; and at the server,

maintaining a target-buffer-level measurement to track the new minimum client buffering

capacity; and, wherein modifying the supply of the media stream includes modifying the supply

of the media stream in response to the current-buffer-level and target-buffer-level measurements.

18. The method of claim 8 further comprising: from the server, communicating the media stream modifications to the clients using real-time-streaming protocol (col.14, line 25-col.16, line 52).

19. The method of claim 5 wherein supplying a media stream from a server to clients at a first bitrate includes supplying data as media packets with a timestamp; wherein scheduling the playout to be at a time equal to a first time interval plus the minimum buffering capacity divided by the first bitrate includes: at each client, reordering out-of-order media packets; at each client, handling any lost media packets; and, at each client, scheduling the playout of the media packets at a uniform rate in response to the media type and the first bitrate (claims 1-3).

Claims 20-38 are similarily rejected as in claims 1-19.

4.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Pwu whose telephone number is 571 272-6798. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 571 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Friday, November 26, 2004

JEFFREY PWU
PRIMARY EXAMINER